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JOHN BRETT was born at Reigate on the 8th of December 1831. He was an artist of eminence, and was elected an Associate of the Royal Academy in 1881. "In early life" (to quote the *Times* of the 9th of January) "he came strongly under the influence of the Pre-Raphaelite movement. Over an early picture of his, *The Stonebreaker*, Ruskin grew enthusiastic. 'It is a marvellous picture,' he wrote, 'and may be examined inch by inch with delight;' and again, 'I know no such thistle-down, no such chalk hills and elm trees, no such natural pieces of far-away cloud.' This picture was exhibited at the Royal Academy in 1858. In the following year Brett showed his famous *Val d'Aosta*, in which he endeavoured, not without success, to carry out the principles of the pre-Raphaelites in landscape-painting. Very few artists have tried to do this, though Holman Hunt, in addition to Brett, showed that the aims of the school could be illustrated by landscape as well as by romantic figure pictures." Perhaps the most famous of the many pictures of sea and coast scenery which he painted later was his *Britannia's Realm*, a simple stretch of open sea, which nevertheless fascinated the attention; it was exhibited at the Royal Academy in 1880, and purchased by the Trustees of the Chantrey Bequest. He continued to paint and exhibit up to the closing years of his life, and died at the ripe age of 70 on the 7th of January 1902.

Mr. Brett was a devoted astronomer throughout his life. "I think he was about thirteen or fourteen years old," writes his brother, "when he *bought* his first telescope, and that was a 3-inch reflector. I remember it well. Before that time he had always made up his telescopes of such pieces as he could collect at second-hand shops. From the 3-inch reflector he went to a 6-inch; and when he was sixteen, or perhaps seventeen, he made his 9-inch telescope, casting its speculum in the disused coach-house at home, and grinding it and polishing it on a machine in his painting-room. Many a halfpenny I earned turning the handle. He was well convinced of the disadvantages appertaining to any tubular connection between the speculum and the eye-piece; and that 9-inch reflector had no tube, the connection being by a stout beam or bar of wood at one side; and in his last 11-inch Browning reflector the same principle is carried out. Currents of air and needless vibrations are thus avoided."

Mr. Brett was elected a Fellow of this Society on the 9th of June 1871. Just previously he had been out to Sicily with the expeditions to observe the total solar eclipse of the 21st of December 1870, and had made observations, of which he gave a clear account (*Monthly Notices*, xxxi., p. 163) and several drawings. He states what he saw with an independence and fearlessness which his subsequent papers showed to be characteristic. "The appearance (near the limb), on the whole, was far more like terrestrial conflagration than I expected, especially (in a footnote) the combustion of wood in a baker's oven when nearly exhausted.

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. . . . I must confess I was extremely vexed not to see anything like the corona I expected; I should never have called this a corona at all. . . . . There were certainly no streamers, so I conclude they must have been intercepted by the cloud. I do not mean merely that their light was, but their cause also. . . . . I conclude that the dew which would have formed streamers was, at Augusta, intercepted or prevented by cloud; although the latter was not dense enough to conceal much." (*Monthly Notices*, xxxi., pp. 165–6.) We now know that this conclusion as to the terrestrial nature of the streamers was incorrect; but Mr. Brett, no doubt, recorded very faithfully what he saw. His trained eye was a most effective astronomical weapon, and his actual observations are deserving of every respect, though when he proceeded to draw deductions he is more open to criticism.

At this same eclipse he noticed a "ray or cone of light emanating from the south (later, also the north) cusp in a direction tangential to the Moon's limb, length not more than 3′: light less intense than that of the cusp, but as beautifully defined as anything I ever saw in my life." At the partial eclipse on the 10th of October 1874 he saw the same phenomenon on a much smaller scale, and made the suggestion of a lunar atmosphere, which is only of appreciable density in the deepest valleys. This is not the place to discuss the conclusion, but the observations are well worthy of note; as also those from which Mr. Brett concluded that indications of the corona could be seen without an eclipse (*Monthly Notices*, xxxii., 297).

His other observations (made at his residence at Putney, chiefly with the Browning reflector above mentioned, for which he devised a simple but firm altazimuth mounting, though he had, also, the Matthew Equatorial on loan from this Society for many years) were of planetary detail, and called attention to several points of great importance. He observed that the white spots on *Jupiter* were either themselves shaded or cast a shadow, and concluded that "neither the dark belts nor the bright ones are opaque, and that if *Jupiter* has any nucleus at all it is not visible to us." He observed that the brightest point of the disc of *Venus* was not at the limb, but sensibly within the limb, indicating that there was specular reflection from its surface largely modified by atmospheric diffusion. And, finally, he observed shadows cast by the polar caps of *Mars*, and concluded that they were not snow, but cloud.

These observations met with almost a storm of incredulity in some quarters when communicated to the Society. "One is tempted to ask," wrote the late Mr. R. A. Proctor to the *Astronomical Register* (vol. xv., page 45), "what is coming to the Royal Astronomical Society when such a paper as Mr. Brett's, on the bright ring seen round *Venus* during transit, is allowed by the Council to be read before a meeting of the Fellows? . . . All that the spectroscope has taught us, all that we have learned of meteoric and cometic systems and of the laws of cosmical evolution, the laws of optics, and in fine the teachings of every department of modern astronomy, seem of no weight whatever with the excellent artist whose paintings of Scilly scenery delighted us so much a year or so since. Not content with seeing the corona in the full blaze of sunlight, and setting globes as large as the Earth bobbing in the atmosphere of *Jupiter*, he would now set astronomers to look during the transit of *Venus* in 1882 for an image of the Earth reflected in *Venus's* looking-glass! What next? and next?" They were times when views were expressed with considerable frankness within the Society; and Mr. Brett himself, it may be acknowledged, was one of those who spoke his mind most directly. But those who, instead of ridiculing an observation because it announced a new fact, took the trouble to test it by observation themselves, generally found that Mr. Brett's keen sight had not misled him. The present Astronomer Royal tested the announcement of specular reflection from *Venus* by an independent method with the 13-inch Merz refractor, and verified it; and he followed Mr. Brett in his explanation of the bright ring seen round *Venus* in transit as due to specular reflection modified by atmospheric diffusion. The observations on *Mars* have been corroborated, though differently interpreted; for other observers have seen a dark border to the caps and called it melted snow. The shadows cast by white spots on *Jupiter* were confirmed by M. Faye in a paper read to the French Academy in 1876; and, as regards seeing the corona in daylight, M. Tacchini recorded an even more remarkable observation in 1879 (*Observatory*, vol. ii., page 423). Recently more attention has been paid to the photography of the corona without an eclipse than to eye observation of it. If in the future our attention is recalled to eye observations, Mr. Brett may again be found to be right. His own generation, though his observations came as a shock to them, were not lacking in recognition of his merits. He was elected on the Council in 1876 and again in 1877. As a "sign of the times," it may be recalled that the scrutineers were only able to announce the Council list in 1877 after an absence of two hours and a half. Mr. Brett was constantly at the meetings of the Society until the last ten years, when his failing health prevented attendance; and his characteristically emphatic remarks were a well-known element in the discussions. Almost his last appearance was in April 1892, when Captain (now Sir William) Abney read a paper on the extinction of star-light with a wedge, and talked of the fatigue caused by looking at different colours, saying that looking at red for some time rendered the red nerves useless. "You can look at the green till all is blue, sir!" interjected Mr. Brett, and Captain Abney at once acknowledged the aptness of the remark.

In his paintings Mr. Brett found greater scope for exact appreciation of meteorological than of astronomical phenomena; but in one of his great pictures, "Summer Sunset in the Hebrides,"

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painted in 1880, he shows how the Sun may be painted the right size (usually it is grossly exaggerated in pictures) and yet produce the right effect on the casual observer. He made a sketch of the great comet of 1882, which was reproduced in the *Monthly Notices* (vol. xliii., page 288); and a "rough drawing of *Copernicus*," made with the Matthew Equatorial in 1876, forms the frontispiece to vol. i. of the *Observatory*. H. H. T.

Robert Crowe was born at Middleton, in the Yorkshire Wolds, on the 19th of December 1820. He obtained the degree of Master of Arts at Trinity College, Dublin, and shortly afterwards took Holy Orders. For 47 years, from 1851 to 1898, he was Vicar of Woodhouse, near Huddersfield. He made his own telescopes and was a regular observer of the planets. He became a Fellow of the Society in 1869.

He married a daughter of the Rev. C. Drawbridge, a former vicar of Honley, near Huddersfield. They had no children. He died at Woodhouse Vicarage on the 9th of November 1901.

Alfred William Drayson was born at Waltham Abbey, Essex, in 1827. He received his education at the Royal Military Academy, Woolwich, and obtained his first commission in 1846. He served in the Kaffir war in 1847, and against the insurgent Boers in 1848. In both campaigns his knowledge of the Kaffir and Zulu languages were of great service. He was appointed instructor in surveying and field works at the Royal Military Academy, Woolwich, and shortly afterwards professor of surveying and practical astronomy. During this period he was instructor to the Duke of Connaught. On returning to military duty he was appointed to command the Royal Artillery at Portsmouth. In 1876 he proceeded to India in command of his brigade, and did valuable work in the rearmament of various forts in Bengal. Upon returning to England he was promoted to the rank of General. He retired from the army in 1883, and lived at Southsea till his death on the 27th of September 1901.

General Drayson wrote a number of stories, beginning in 1858 with *Sporting Scenes among the Caffres*, and following with *Among the Zulus*, *The Gentleman Cadet*, and many others. He published books on billiards and whist, on both of which games he was an authority.

As a military writer mention may be made of his work on military surveying, which had several editions and was used as a text-book.

In his astronomical writings General Drayson went somewhat astray. In one of these he attributed what were really errors of observation to a gradual increase of the Earth's diameter; and in another he substituted a geometrical movement of the pole (which more or less accounted for the phenomena of recent years, but which was entirely empirical) for the orthodox precession,